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AUTHOR Miller, James R.; McCormick, Robert W.
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ABSTRACT

The purpose of this study was to develop a theoretical organizatien model to improve the total extension outreach of The Ohio State University. Using literature review, experience, observation, interview techniques and a systems analysis approach, micro models of rural, urban, and metro county offices and a macro model of the extension service were developed, designed, and illustrated. Critical elements and variables were identified, and formal and informal relationships and communication networks were outlined briefly. The models were presented along with supporting written text and a questionnaire to high level administrators of extension in state universities and land grant colleges for constructive suggestion and reaction. Results from 63 percent of the institutions surveyed revealed that: (1) The models could provide assistance as a methodology to improve the extension outreach of both merged and non-merged organizations, (2) The models could assist in bringing about a merged extension service where a non-merged structure now exists, (3) The models could help solve program planning and implementation problems, and (4) The use of business and industrial concepts was considered a contribution to the body of extension knowledge. (SB)

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RESEARCH SERIES IN AGRICULTURAL EDUCATION

A Research Report of a Graduate Study

Issued by
The Department of Agricultural Education
College of Agriculture and Home Economics
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RESEARCH SERIES IN AGRICULTURAL EDUCATION

A Research Report

Condensed From a

PhD Dissertation

A THEORETICAL MODEL TO IMPROVE THE EXTENSION EDUCATION OUTREACH OF THE OHIO STATE UNIVERSITY; UTILIZING MARKETING, BEHAVIORAL, BUSINESS, MANAGEMENT, AND SYSTEMS CONCEPTS.

James R. Miller and Robert W. McCormick

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BACKGROUND AND PROBLEM STATEMENT

There is much literature wherein there is an attempt to define, classify, remodel and innovate the education of American youth and adults.

Generally the capabilities of the agricultural sector of the United States have been described as having served well the needs of all mankind. From an economic point of view, the quality and costs of food and fiber have improved greatly over time. The output per unit and the technological infusion has been greater in agriculture than in other sectors of our economy. If these assumptions were accepted, then The Cooperative Extension Services nationally as well as in Ohio, have been successful in making major contributions to this progress.

However, questions have begun to arise comparing the whole environment of social benefit to agriculture generally, and to the Cooperative Extension Service in particular. New dimensions have taken shape. New pressure groups have caused new forces of change. Questions have been raised such as, "Do displaced rural people add to the problems of urban poor?"; "If millions of dollars can be spent subsidizing agriculture or supporting Cooperative Extension Services, why can't resources be implemented to correct much larger and seemingly more pertinent problems of urban welfare and metropolitan development as they relate to all of society?"; "How can the total resource bases of land grant institutions be used to provide broader social benefits?"; "Why can't the same success of Extension in rural American be transfused

into urban America?" Thus it can be seen that if other assumptions were accepted, then the Cooperative Extension Services could be brought under attack as being less than successful.

There has been much written about the Cooperative Extension Services trying to improve and change. The literature indicated several schools of thought as to the future of the Extension Service generally. These seemed to fall at opposite poles. Typical questions posed were: "Should the Cooperative Extension Service provide technical information that is current and decisive, or should it not take sides on issues?" "Should it provide leadership in coordination and planning, but delegate action and implementation to others thereby avoiding criticism, complaint, or risk of failure?" "In other words, should the Cooperative Extension Service take active risks or should it minimize its exposure still being careful not to lose the traditional image of the Cooperative Extension Service of being change oriented?"

The literature also indicates several schools of thought as to the role of the university in social change. Should it take leadership and provide a vocal forum for change but be limited to a level of theoretical dialog? Or should the university become an activist in the process of change joining in with pressure groups to move society?

The literature indicates further paradoxical positions as to the role of the university in its urban setting. Should a large university stay aloof within the intellectual sphere, or should it recognize that it is an integral part of that local economy financially, sociologically, and politically?

There also has been extensive literature about the value and future trends in continuing education and general extension organizations. The libraries of higher education contain journals and philosophical writings trying to define education and to analyze the objectives and benefits of learning. An impending collision has been predicted for the path taken by informal education and the current structure of formal education in the United States. Land grant institutions have referred to their charter to serve all mankind, but they are being challenged more and more about unfulfilled promises.

If these polemic positions were in fact true; and if there were rigidities in the traditional education and extension structures which precluded flexibility; and if society did, in fact, demand prompt political action and social reform; and if government programmers did fail to see the benefits and expediencies of utilizing existing organizations; what appeared to be needed was a whole new methodology to bring the many variables together in a dynamic environment.

Thus the problems of The Cooperative Extension Service nationally, as well as in Ohio, were viewed in this study as being similar to the problems faced by a large, well-established corporation which has been successful during a generation or so of dynamic leadership. However, the organization, expertise, products, services, facilities and locations were beginning to be threatened because of changing total markets, shifting audience segments, new technologies, new concepts, geographical shifts, and organized but flexible competition hitting traditionally solidified areas.

The background of the problem included a brief history, recent developments through the national report, "A People and A Spirit" and the Ohio report by Battelle Memorial Institute outlining the pressures for change.

The specific purpose of this research project was to develop a theoretical organization model to improve the total Extension outreach of The Ohio State University. It was understood that the University, through its various extension thrusts and continuing education programs, was recognized for its excellence both within the state and nationally when compared with other states.

However, it was pointed out that organizations which became caught up in very dynamic environments have an increasingly difficult time identifying the problems, let alone trying to arrive at feasible solutions. It is from this vantage that concepts proven in other disciplines were thought to offer dramatic new insights into anticipating, identifying, analyzing, classifying, and solving the problems of educated man. It was hoped that unorthodox solutions to orthodox problems would thus become possible through greatly improved capabilities of concerned people in the extension outreach organizations.

Two of the major variables considered in building a theoretical model were location of change and the change agent or personnel. These needed to be considered at all levels of activity, e.g. local, area or regional, state, and national.

Since the Cooperative Extension Service in Ohio was heavily agriculturally oriented and funded, and since it was staffed largely with traditional problem solving personnel and capabilities; the model

to be tested was limited to encompass the best of the past utilized in the still applicable areas; but also sufficiently flexible to allow for whole new concepts to be funded, staffed, and tried.

One method not defined in the literature, but based on the author's research and experience was to restructure the local levels of contact into new definitions. Counties were hypothetically redefined as METRO COUNTIES, RURAL COUNTIES, and URBAN COUNTIES. Those counties that are of predominantly industrial and urban composition were called METRO COUNTIES. Other counties that are primarily agricultural were classed as RURAL COUNTIES, and those in between were referred to as URBAN COUNTIES because they are still primarily agriculture but contain several growing municipalities.

ASSUMPTIONS, OBJECTIVES AND METHODOLOGY

If the assumption that the Cooperative Extension Service can and should be a source of technical change and leadership, then a new model of organization should be developed.

Further, if the assumption follows that universities should become involved in change in urban and poverty environments, then again a new model of organization is needed.

Lastly, if the assumption that traditional Extension Service methods basically are relevant to performing change agent leadership in urban areas, then again the new model of organization is needed.

The specific objectives of this study designed to develop a theoretical organization model to improve the Extension outreach of the Ohio State University included the following:

(1) Describe in detail the current status of the total University Extension outreach programs now in effect in the various colleges and regional campuses of The Ohio State University.

(2) Identify, describe, and dissect for comparative study, the concepts of Extension, systems analysis concepts, marketing concepts, behavioral concepts, business cost-benefit analysis and dynamic environment decision-making concepts.

(3) Describe in text and illustrations the theoretical models for each level of Extension - state, area, and county.

(4) Define the line organization, the staff organization, and the communication network, as they relate to formal and informal organization theory.

(5) Field test the models with a population of thirty-four administrators of both Cooperative and General Extension organizations in twenty-two land grant institutions in the eastern United States.

The methodology used literature review and personal interview techniques to describe the current status of Extension outreach of the University as a basis of departure.

Concepts from other disciplines that were thought to be pertinent were related to Extension objectives and benefits, or disadvantages, as seen by the author or other interested reviewers. Proven principles of "Systems Analysis" were used.

Again using literature review, experience, observation and interview techniques; the theoretical models were developed, designed, and illustrated. Critical elements and variables were identified. The formal and informal relationships and communication networks were outlined briefly.

The models were presented along with supporting written text. The report draft was refined and improved and was then exposed to experts for constructive suggestion and reactions. The population of experts were defined as high level administrators of Extension in state universities and land grant colleges. This suited the first criteria that the institution must have an Extension outreach and be a comprehensive university complete with professional degree granting facilities.

The institutions were located in midwestern, southern, eastern and southeastern states, generally within the boundaries circumscribed by the four states of Minnesota, Louisiana, Georgia, and New Jersey.

This complied with the second criteria that general subject and audiences of the outreach must be similar in the aggregate with Ohio. Some of the sub-criteria considered included: size, land use, population, urban development, agricultural production, resource development, industrial development, etc.

The third criteria was that the experts should be able to offer perspective from both the merged general and cooperative extension service; as well as in the independent cooperative extension and independent general extension service. The total of states, twenty-two, included fourteen with separate extension services. The eight states with merged extension services included: Wisconsin, West Virginia, Missouri, Georgia, Delaware, Alabama, Iowa, and Virginia.

THEORETICAL MODELS AND ANALYSIS

The Ohio State University has a somewhat complex thrust toward its Extension outreach beyond the Columbus campus. Over time there have developed a variety of plans, pressures, and responses. There are now four branch campuses. The Cooperative Extension Service of the College of Agriculture and Home Economics utilizes experiment stations, ten area offices, and eighty-eight county offices. General Extension functions have grown or are being investigated by several of the more aggressive schools and colleges. There is some activity in urban extension.

A major overall thrust in the whole field of continuing education is being made on the Columbus campus. A new $6 million building, The Center For Tomorrow, was completed in early 1970 to house, feed, and provide on-location continuing education services. University communications and information handling via radio and television, visual aids and libraries comprise the Office of Educational Services under the administration of a vice president.

In this study, the major emphasis was on the Extension Service of the College of Agriculture and Home Economics. It is here that the greatest resource base is already available. It was here that the Battelle study caused the greatest impact. Since that time, the Cooperative Extension Service has made great efforts at introspection. It has investigated needed change and has taken much positive action.

Van Dalen states that educational innovation requires twenty-five years from the inception of an idea until it is put into practice.[1]

The author's experience in the agricultural and foods industries indicated that farm implement manufacturers' new product horizons were about seven years. In consumer fashion goods, it was one year. In the food equipment and packaging industries, the time horizon was three years from idea conception to commercialization and profit payback. This was as late as 1967. Certainly this has been improved even more with sophisticated computer simulation models for venture analysis.

Producers are using computers to simulate farm and finance plans through banks, insurance financiers, and farm bureaus. Vertical, horizontal, and conglomerate integration in processing and food marketing companies have brought much decision making technology and managerial skills into the traditional audiences of the Cooperative Extension Service.[2]

Furthermore, pressure groups are making their impacts on other audience segments demanding change now, not later. Bennis and Slater state that, "Change is the one thing in American life that seems to be constant."[3]

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[1]Drobold B. Van Dalen, Understanding Educational Research, New York, N.Y.: McGraw Hill Book Co., 1962.

[2]Konrad Biedermann, James R. Miller, Odin Wilhelmy, Jr., "A Technical Economic Evaluation of Profitable Expansion Opportunities In U.S. and Canadian Animal Agriculture For Quaker Oats Company", Columbus, Ohio: Battelle Memorial Institute, March 29, 1967.

[3]Warren G. Bennis, Phillip E. Slater, The Temporary Society, New York, N.Y.: Harper & Row, 1968.

Cooperative Extension Service

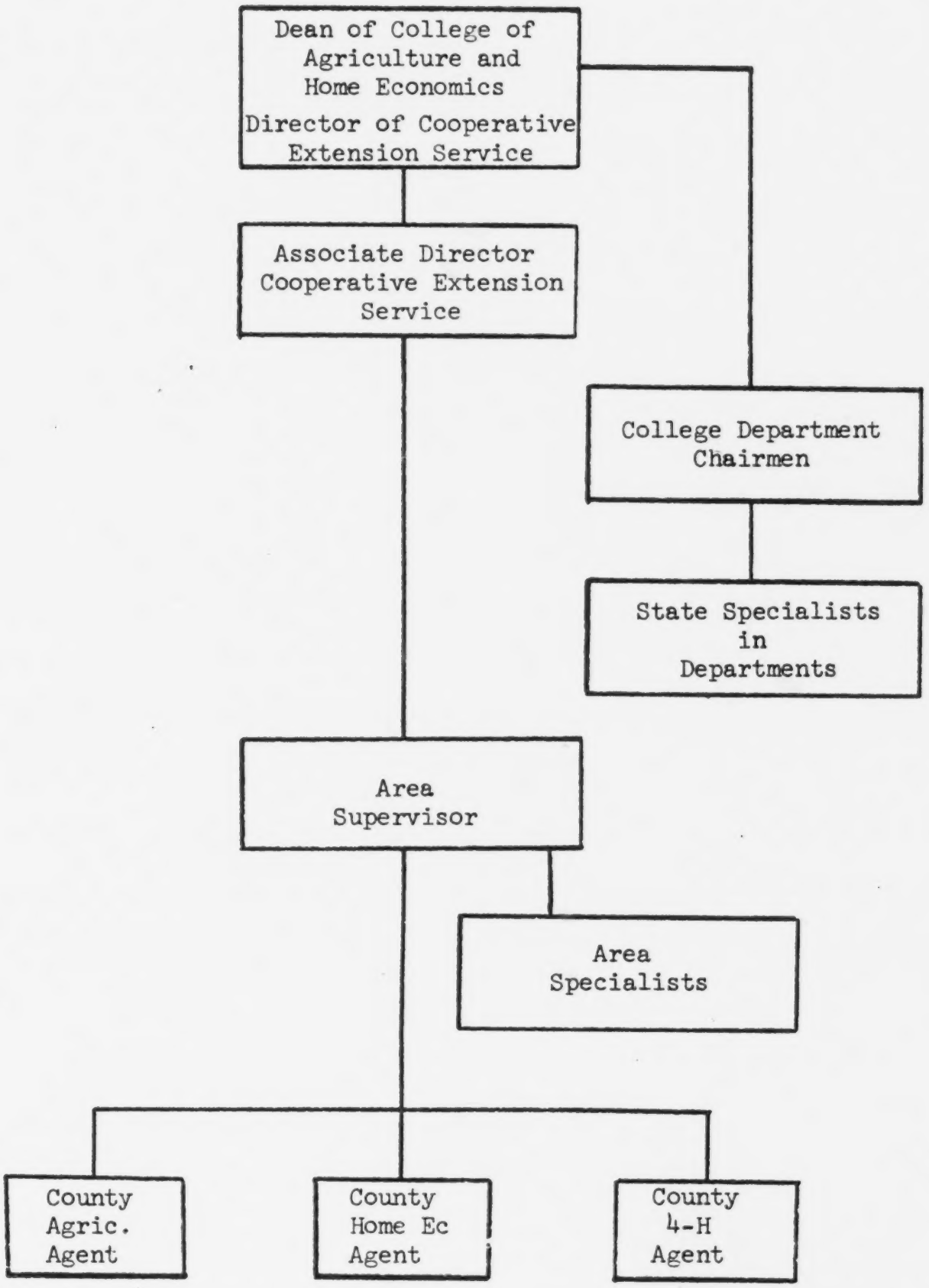
The basic objective of the Cooperative Extension Service is to assist people in making use of agricultural and home economics research information furnished by the College of Agriculture and Home Economics, the Ohio Agricultural Research and Development Center (formerly called Experiment Station), the United States Department of Agriculture, and other land grant colleges and universities.

Educational information from these sources is disseminated through a professional staff of county and area extension agents and state extension specialists. All are members of the faculty of the College of Agriculture and Home Economics. They work closely with citizens who are members of the county, area, and state extension advisory committee. They also work with local, state, and federal organizations, agencies, and groups in identifying major problems and determining objectives. A model of current organizational structure is shown in Figure 1.

The general framework for these extension programs is established by state and federal laws. Program emphasis is determined within the policies of The Ohio State University, the College of Agriculture and Home Economics, and the Ohio Cooperative Extension Service. Major areas have been defined in agreement with the Federal Extension Service to include: (1) Agricultural Industry; (2) Home Economics; (3) Resource Development and Public Affairs; (4) 4-H and Youth Development.

FIGURE 1

CURRENT ORGANIZATION STRUCTURE



General University Extension

The current status chapter in the original dissertation included detailed descriptions of the extensive outreaches of the Colleges of Administrative Science, Education, Engineering, Law, Medicine, Optometry, Pharmacy and Veterinary Medicine. The regional campus and continuing education or adult education program were also explained and brought into focus.

Above reference was made to the several paradoxical positions apparent in contemporary American educational literature. Stanley Moses[4] in his landmark paper "The Learning Force: An Approach to the Politics of Education," predicts a collision course is developing between formal and informal education. The "learning force" he says refers to all those participating in education activity in "the periphery" as well as "the core". The core emphasizes commitments to sequential programs over long periods of time and which also establish standards designed to exclude those without the credentials of the core.

The periphery refers to the participation in a variety of educational activities ranging from vocationally oriented programs in business, government, the military, proprietary schools and anti-poverty programs to the cultural and leisure oriented program in regular core institutions, religious education, television correspondence courses and private associations.

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[4] Stanley Moses. "The Learning Force: An Approach to the Politics of Education," A Paper for the American Political Science Association, Syracuse University, Syracuse, New York, September 5, 1969.

Author's Note: If Moses is correct in predicting a collision, Extension would appear to be located in "no man's land" between the core of land grant university institutions and the periphery of informal continuing education.

Systems Analysis Approach

American technology has helped industry and government to cope with and find opportunities in dynamic environments. The basic approach is called "The Systems Approach". The design and use of PERT (Plan, Evaluate, Review Techniques) systems has been proven in defense industries. Systems engineering put man on the moon. Computer simulation models can forecast a new product, its markets, its potential profit without prototypes being built. The total marketing concept is a system proven in industry. The marketing concept has been placed into a classic description by the Ohio State University Faculty of Marketing: "Marketing is the process in a society by which the demand structure for economic goods and services is anticipated or enlarged and satisfied through the conception, promotion, exchange and physical distribution of such goods and services."[5]

According to Lazer and Kelley[6] the systems approach places great emphasis on the analysis of flows and communications. Systems thinking recognizes the inter-relations and the inter-connections among the components of a marketing system.

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[5] Journal of Marketing, Vol. 29, No. 1, American Marketing Association, Chicago, Illinois, 1965.

[6] Eugene J. Kelley, William Lazer. "The Systems Approach to Marketing", Managerial Marketing, Homewood, Illinois: Richard D. Irwin Inc., 1967.

Systems thinking furnished information about adaptations of systems, recognizes changing environments, and provides a conceptual framework for control. The effectiveness depends on having and using the right information.

Alderson[7] develops "A Normative Theory of Marketing Systems" tracing the beginning back to societal and socioeconomic bases. He refers to "ecological framework, the survival and adjustment in organized behavioral systems." He states that "Every active marketing program endeavors to accelerate change or delay it." The behavioral systems move through levels of change and homeostasis: (1) the market equilibrium, (2) the organizational equilibrium, (3) the ecological equilibrium which pertains to the adjustment between society and its environment. Survival, power, conflict, and leadership are all relevant concepts in his "pathology of the systems." (Note: Are not similar concepts and terms heard in Extension Service dialog?)

A review of any leading marketing text or readings book reveals many concepts that are similar or useable by the Cooperative Extension Service. Beckman and Davidson's[8] Marketing lists chapter titles as "The Societal Environment of Marketing," "The Legal Environment of Marketing," " Consumer Marketing," "Institutional Structure of Marketing" and "Marketing Philosophy and Goals." The first words of the book are, "Marketing is an aspect of human behavior...."

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[7] Revis Cox, Wroe Alderson, Stanley J. Shapiro. "Theory in Marketing", Homewood, Illinois: Richard D. Irwin, Inc. 1964.

[8] Theodore N. Beckman, William R. Davidson. Marketing, Eighth Edition, New York, N.Y.: Ronald Press, Co., 1962.

Sessions[9] concludes that "Perhaps the marketing concept is most constructive in helping to recover a firm grip on the obvious. This concept not only provides a framework that is simple in its design and therefore communicable; it is also operational because it links responsibility with purpose and results with the decisions and actions that produce them."

In the final analysis many ideas and concepts from marketing and other disciplines are applicable to the Cooperative Extension Service. It is in these dynamic environments where the biggest problem may be first defining the problems in order to establish priorities of action towards solutions.

Figure 2, Panel A. illustrates the total marketing systems concept for industry. Note how management can view the various subsystems from raw material procurement through processing through distribution to the consumer or industrial user. Thus the production function procedes through distribution functions all of which are supported by inputs from management and finance. The feedback circuit from the end user to management is by way of research carried on to determine if users are satisfied and are rebuying present goods and services. Research also uncovers new needs and ideas and forecasts their acceptance through pilot programs, field tests, or market research.

Likewise, Panel B illustrates the similarity of a systems analysis approach of a total marketing concept as being applicable to a university environment. The university administration can view the various

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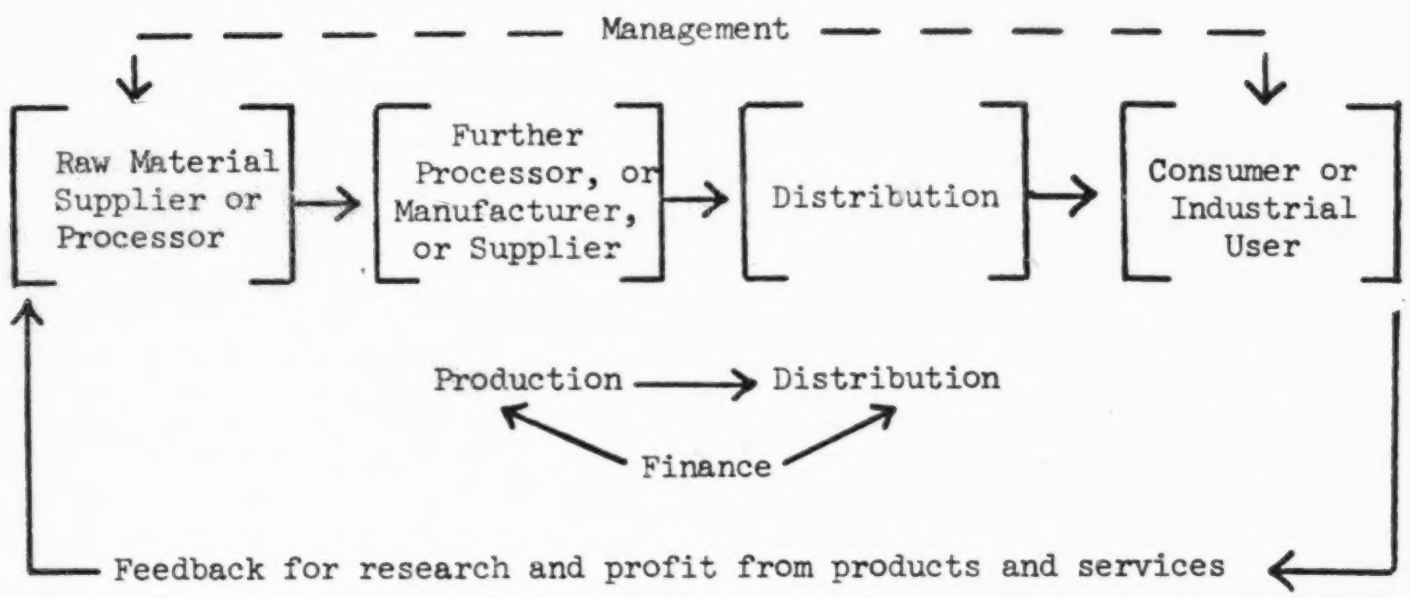
[9] Robert E. Sessions. "The Marketing Concept in Action", 47th National Conference, American Marketing Assoc., Chicago, Ill., 1964.

FIGURE 2

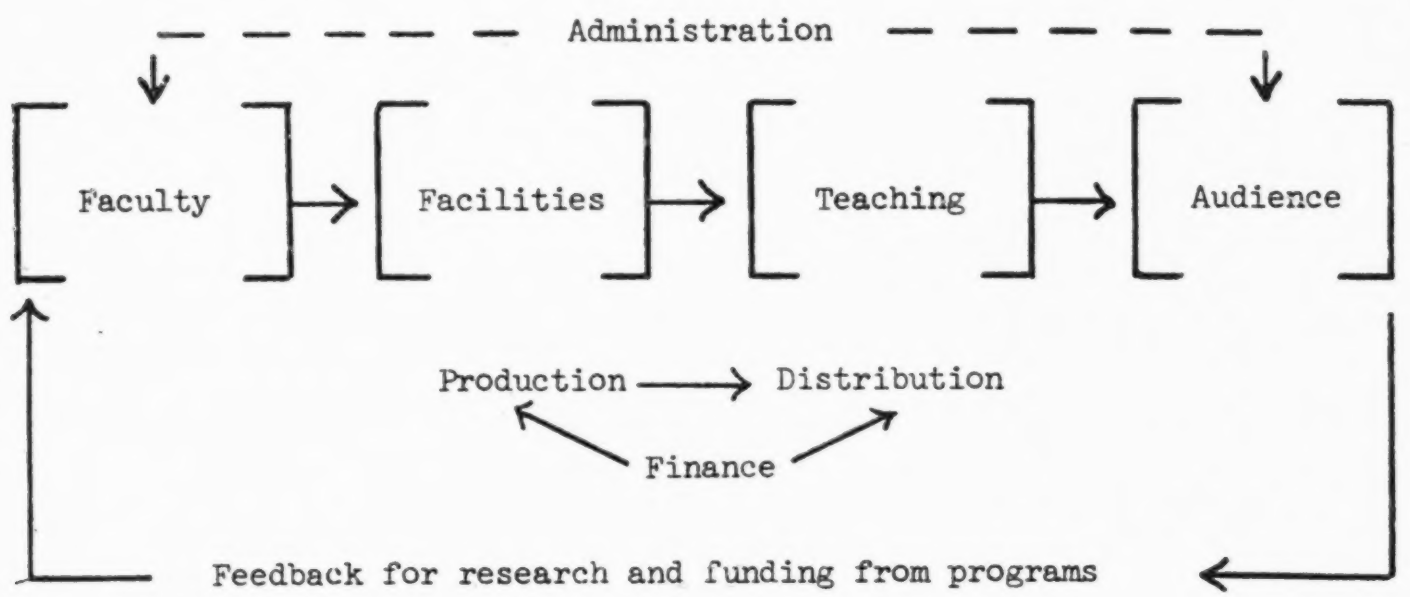
A MODEL OF SYSTEM ANALYSIS APPROACH

TO TOTAL MARKETING CONCEPT

Panel A - Industry



Panel B - University Environment



subsystems of inputs from faculty using facilities through the distributing of knowledge by teaching to reach the audience or students. This is a people to people system wherein the production functions of developing faculty capability via research and constructing buildings proceeds through distribution functions of teaching to reach the end user, the student. Production and distribution are facilitated through financial fund procurement and administration. Again the feedback circuit from the end user (students of Cooperative Extension Service audiences), utilizes research and reporting techniques, tells administrators and managers what new needs are developing, and how well the current programs are fulfilling their objectives.

Lorsch and Lawrence[10] identified the characteristics of companies that were well organized for product/service innovation. Figure 3 illustrates the ideal scientific transfer to and from market environment, to and from production environment, to and from research. Author's Note: Is the triad of activity not very similar to that of the triad of extension, teaching, and research?

Thus it would appear that the total marketing concept utilizing a systems approach not only offers much benefit to administrators of the Cooperative Extension Service specifically, but much can be gained by the entire university generally. This approach looks first to the market or audience and defines various strata and segments.[11] It then

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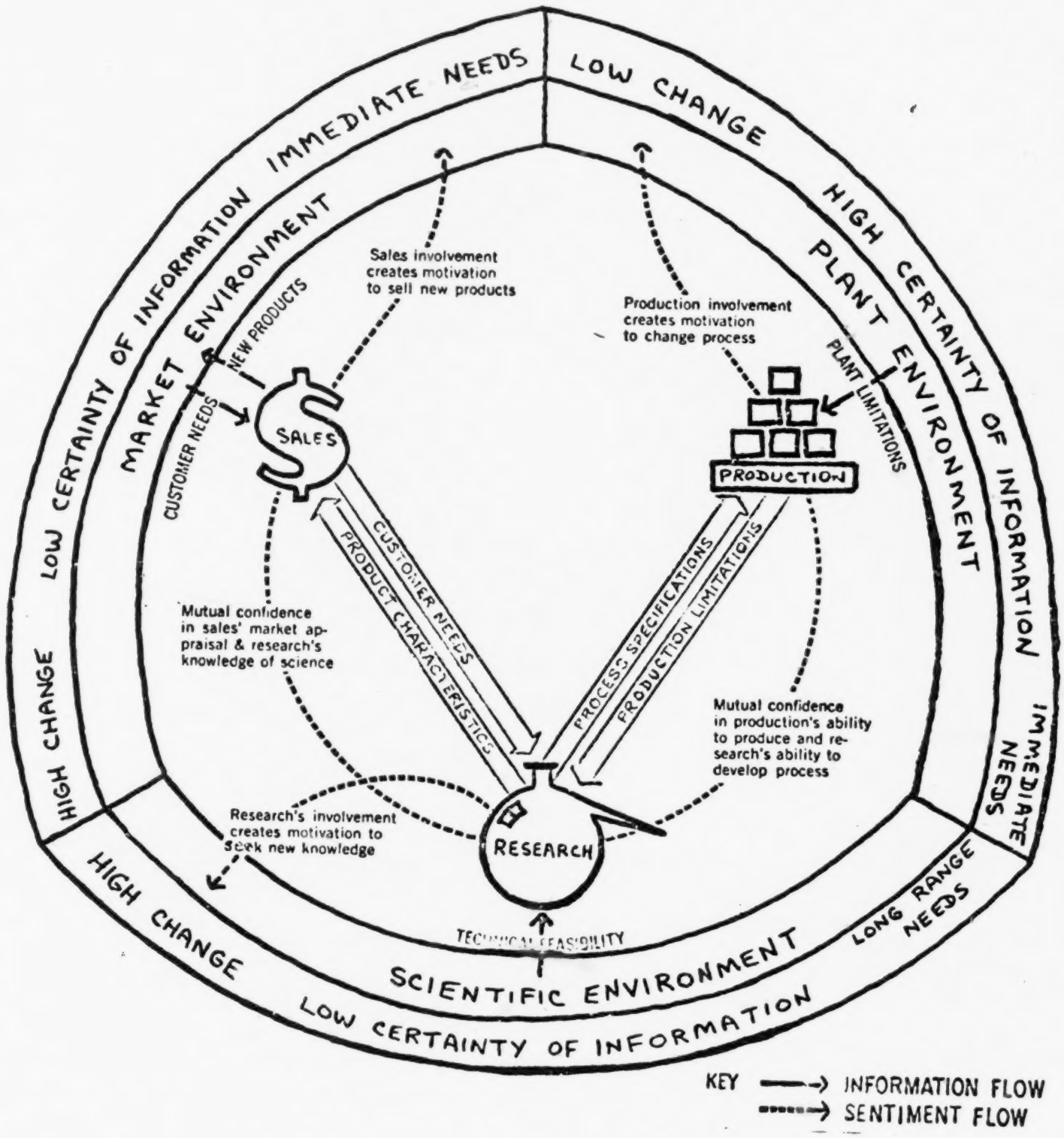
[10] Jay W. Lorsch, Paul R. Lawrence. "Organizing for Product Innovation", Harvard Business Review, Vol. 43, No. 1, Boston, Mass.: Harvard University, 1965.

[11] James R. Miller. "Marketing to an Increasingly Stratified Agricultural Economy - Profiling the Farm Input Decision Maker", Presentation to the National Agricultural Advertising and Marketing Association Meeting, Chicago, Illinois, March 29, 1967.

FIGURE 3

SCIENTIFIC TRANSFER PROCESS: THE IDEAL



Author's Note: In the "Production of Education" faculty and staff capabilities replace plant limitations. Customer needs equal audience needs.

analyzes the trends of those subgroups to determine felt and unfelt needs. These are identified, researched further, placed into a plan, organized and forecast into budget. The success potential, total benefits gained, and opportunities for further steps of improvement are outlined. The programs are placed into priorities, funded, and implemented.

Communication throughout the network of service and education keeps the administrators informed so that adjustments in budget, program emphasis, personnel, etc. can be made. In the Cooperative Extension Service, production of programs is a people system, teaching is people system, administration is people system. The subsystems needed to work together to plan, to debate issues and priorities, and to coordinate action. This requires open and direct line authority but allows for informal and indirect communication at all levels. As Kelley and Lazer noted, open information flow is critical to success. Sessions emphasized simplicity of system design. Alderson referred to behavioral conflict, objectives, and leadership. Adler talks of strategy. All these marketing leaders list communications as being both essential and facilitated by a systems environment.

As with the marketing concept in industry, the local level action is most critical to the Cooperative Extension Service. This is where the Extension made traditionally an excellent record of working with lay groups and audiences. Their agents have been respected for their expertise and their influence was felt throughout the community.

However, as a community environment becomes more dynamic, then the local agent must adjust. He can become: (1) more dynamic generally and have less depth technically; (2) become less involved in implementation thus concentrating primarily in planning; (3) become more specialized technically and offer less auxiliary services.

The dimension of the problem is increased when considering the personality, age, and capability of the agent. He or she: (1) may want to change and improve; (2) may not want to change; (3) may not be able to change; and (4) may outwardly express willingness but subconsciously and overtly resist. Here the same principles of communication and learning become applicable as the Extension Service has long recognized and applied to learning and change in its lay committees.

The following are presentations of the proposed newly named and structured organization models which are intended to provide the Cooperative Extension Service a maximization of opportunity and a minimization of cost. Maximization and minimization concepts in business are opposites in objectives. Normally organizations in dynamic environments who wish to grow want to maximize their abilities to find, screen, and exploit new opportunities. Conversely organizations which are caught up in change that is difficult to define may want to "get a better grip" on resources and minimize their costs. In between these extremes, there are occasions when a firm will want to "minimax" its position, looking at a few very obvious opportunities but holding tight on costs with its present operations.

These concepts can be likened to the positions Cooperative Extension Service county offices could find themselves if they were to be managed as directly and sophisticatedly as are non-academic or non-extension marketing outlets. The existing capabilities in some offices might be sufficiently adequate, but the costs need to be cut and kept at a minimum. New opportunities would become very limited in importance or at least not considered until proven in other more dynamic counties.

In some counties most of the existing capabilities may be obsolete thus requiring an all-out effort to gain new exposure and explore many new opportunities. Costs, so long as they are within budget, would not be of concern. Some counties may find themselves in between where the minimax principle would have relevance. The next three sections will present the rural county model, the urban county model, and the metro county model in that order. The foregoing concepts will be related where particularly applicable.

Rural County Model

The traditional county office generally cannot compare with the dynamics of the local marketing concepts because of the rigidities expressed and implied by the present formal and informal Cooperative Extension Service organization. Litterer's[12] book of readings cites numerous industry and government examples on this subject. Similarly the Journal of Cooperative Extension has carried several articles on

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[12] Joseph A. Litterer. Organizations: Structure and Behavior, New York, N.Y.: John Wiley & Sons, Inc., 1963.

the problems of the state and area specialist, use of local agents as analysts, etc. which may or may not be impeded by the informal organization of a less structured county office.

The Battelle Study[13] indicated the lack of clearly worded objectives that were understood and translateable at all levels. The Journal of Cooperative Extension has carried articles indicating the problem occurs elsewhere outside of Ohio.

Figure 4 illustrates the micro model of the proposed rural county office. The objective would be to serve the traditional needs of the typical agricultural communities and surrounding farm enterprises. Instead of the usual three full-time permanent professionals, the office would have an administrator and several agent trainees. Where expertise beyond their capability is needed, resource professionals could be drawn in from adjacent counties or from area offices, as is done in California[14] and other states. Thus the services could be provided in accordance to most traditional needs. Stability with flexibility and economy would be gained. Benefits to the audience in relation to costs would be more favorable.

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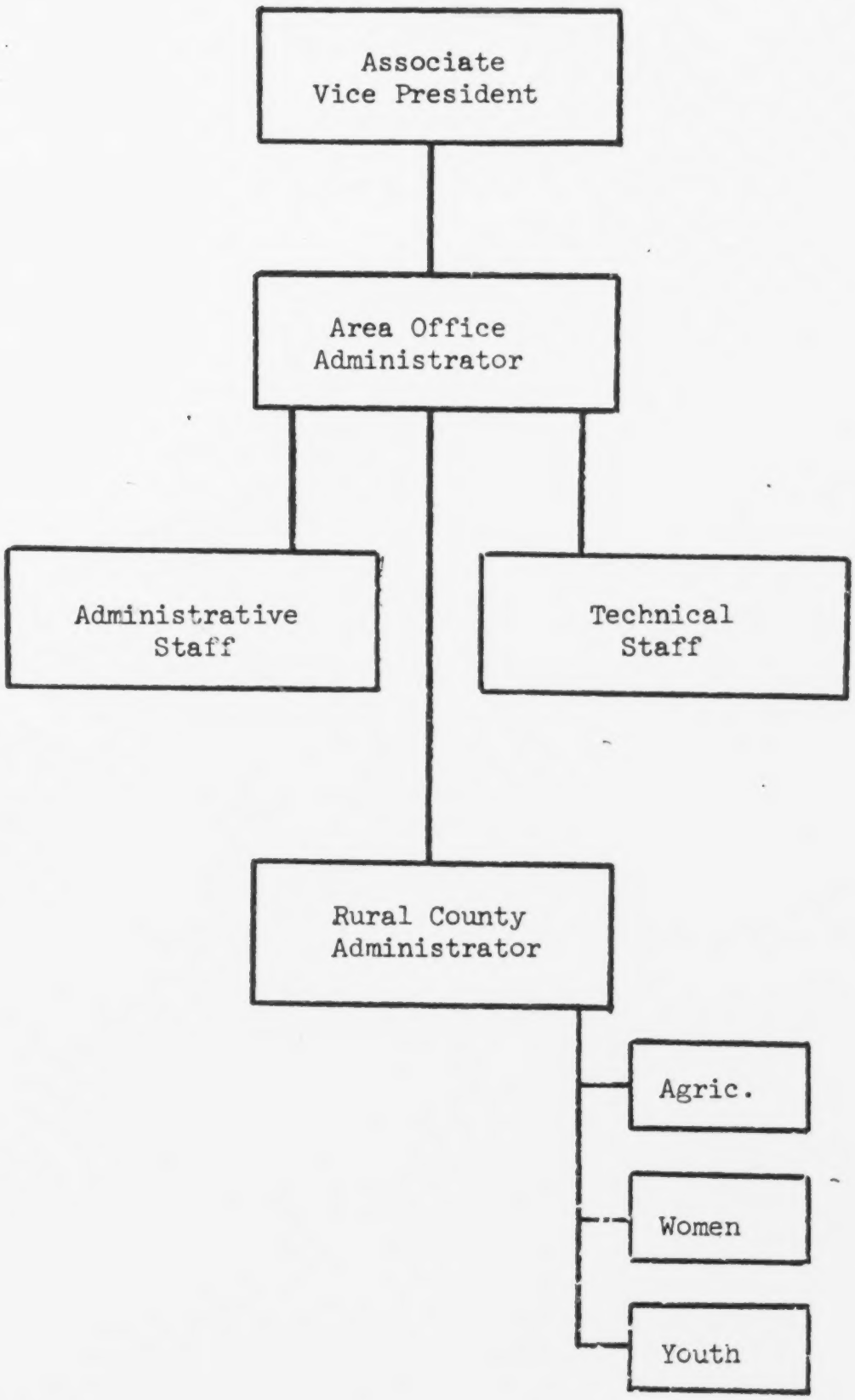
[13] Fishel, Collings, Wilhelmy. "An Objective Evaluation of the Present and Potential Structure and Functions of the Ohio Cooperative Extension Service."

[14] Win M. Lawson. "Staffing Across County Lines For Efficiency," Miscellaneous Agricultural Extension Service Report, Berkeley, Calif.: University of California, September 15, 1969.

FIGURE 4

MICRO MODEL OF RURAL COUNTY OFFICE



Urban County Model

The urban county office (Figure 5) would be identified in a county experiencing considerable change because of land being retired from farming, increasing urban development, transportation expansion, etc. This kind of activity in the traditional setting causes pressures and change that are not always well anticipated or familiar to local leaders or grass roots clientele.

These farmers may also work in the factories. Their views on unionization, finance, leisure, and farming are different than the traditional land laborer.[15] Thus the types and complexities of problems, change, etc. are similar in part but also quite different from the traditional county agent's office.[16,17] Taylor and Jones conceptualize the "urbanized social organization."[18]

Metro County Model

At the opposite end of the spectrum of extension capability is the metro county model. Here is where the action is of bringing of all the pressures of social change to face with all the resources and capabilities that can be brought to bear by the university at a given

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[15] Sidney J. Miller, W. Keith Warner. "Trends in Social Participation", Journal of Cooperative Extension, Vol. 1, No. 3, Madison, Wisconsin: University of Wisconsin, 1963.

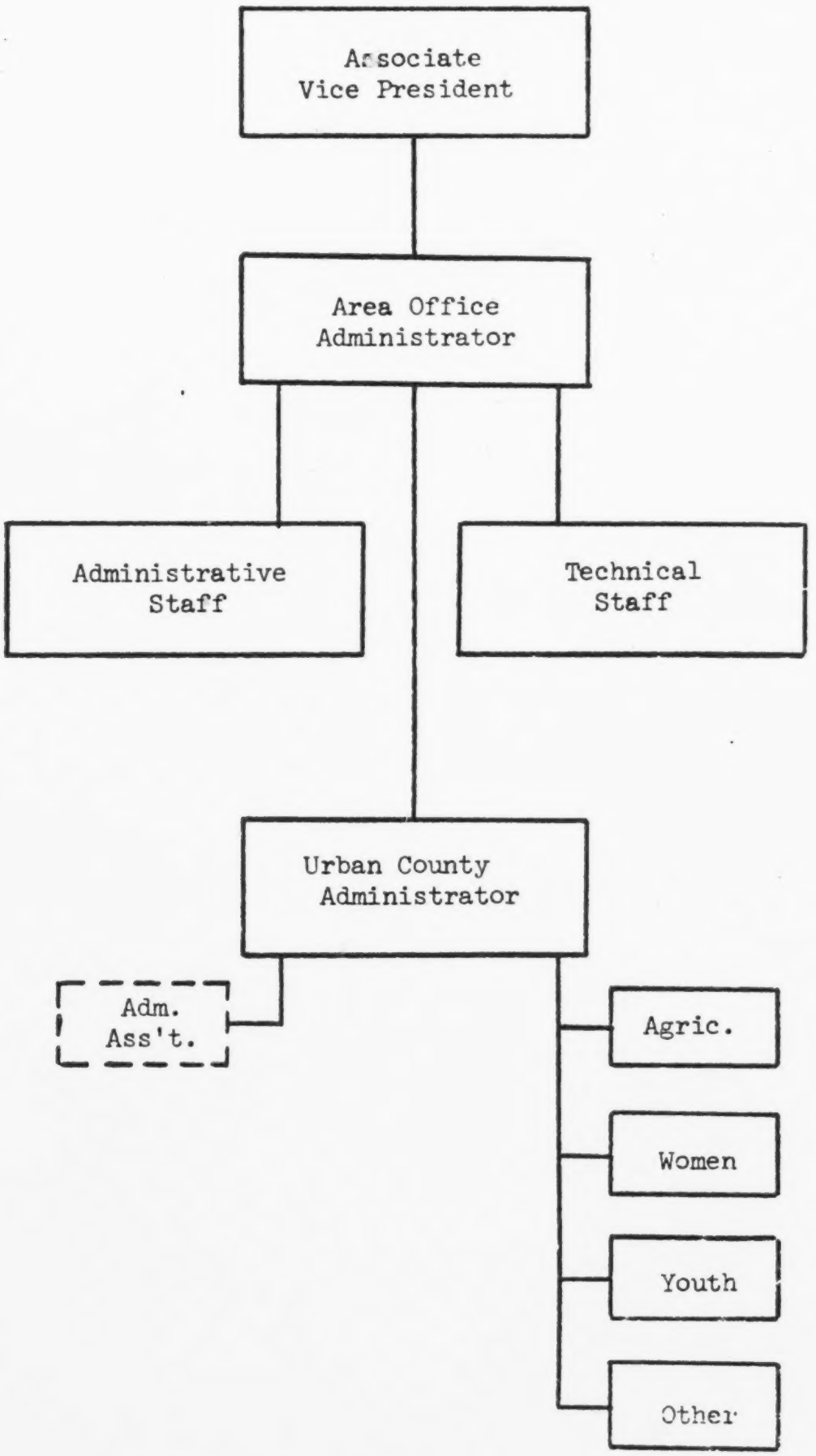
[16] James H. Copp. "Our Changing Rural Society: Perspective and Trends", Ames, Iowa: Iowa State University Press, 1964.

[17] Glen V. Fuguitt. "The Small Town in Rural America", Journal of Cooperative Extension, Vol. III, No. 1, Madison, Wisconsin: University of Wisconsin, 1965

[18] Lee Taylor and Arthur R. Jones, Jr. Rural Life and Urbanized Society, New York, N.Y.: Oxford Press, 1964.

FIGURE 5

MICRO MODEL OF URBAN COUNTY OFFICE



point in time. The metro county administrator has his agents and tenacles of communication spread throughout the environment in order to have a broad network of intelligence. Change direction and velocity can be analyzed and programmed. Unfelt needs can be identified and research before crises erupt. Coordination with other existing agencies tends to spread influence and build the positive image of the Extension Service as a pivotal group within the social fabric of a changing community and structure.

Figure 6 illustrates the micro model of the metro county office. Agents consist of professional specialists, well educated in their discipline, and experienced in the real world of groups, power, political issues, etc.[19,20] Each agent may have several assistants who likewise are seasoned organizers. The administrator needs to be a dynamic leader who is capable always of maximizing the effort for opportunity search and minimizing the risk (not costs).

To this point we have identified theoretically three new local office concepts--the rural, the urban, and the metro. An area office may have none, one, or several of each of these types reporting to it. Additionally, over time, transition may take place as one county moves from rural characteristics to urban to metro. Metro counties may be bordered by urban or rural counties. Rural counties may surround an urban county.

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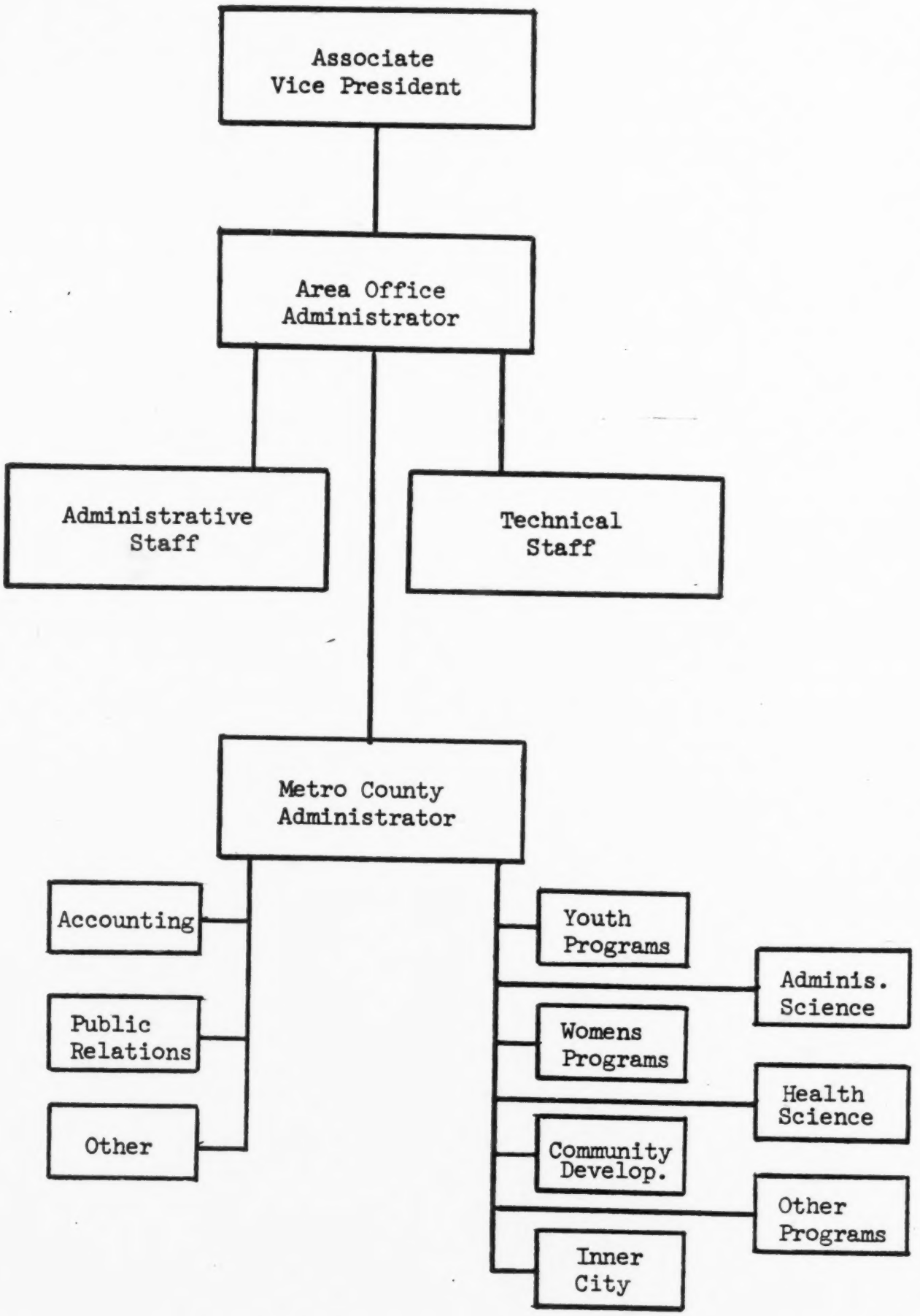
[19] James R. Miller. "Political Science Concepts and an Implication to Use in Program Development", Paper for Dept. of Agricultural Education, The Ohio State University, Columbus, Ohio, February 25, 1970.

[20] Hans B. Thorelli. "Political Science and Marketing", Theory In Marketing (by Cox, Alderson, Shapiro), Homewood, Ill.: Richard D. Irwin, Inc., 1965.

FIGURE 6

MICRO MODEL OF METRO COUNTY OFFICE



Without further detail it can be seen that while a formal line organization structure may delineate rather direct communication networks, informally there must be opportunities for these units of most commonality to discuss mutual or similar problems to arrive at viable, realistic solutions within the time frame of pressure or response.

Additionally, the formal organization requires that personnel have direct short lines of command while still enjoying the freedom to have dotted line connection with their counterparts by function at various levels.

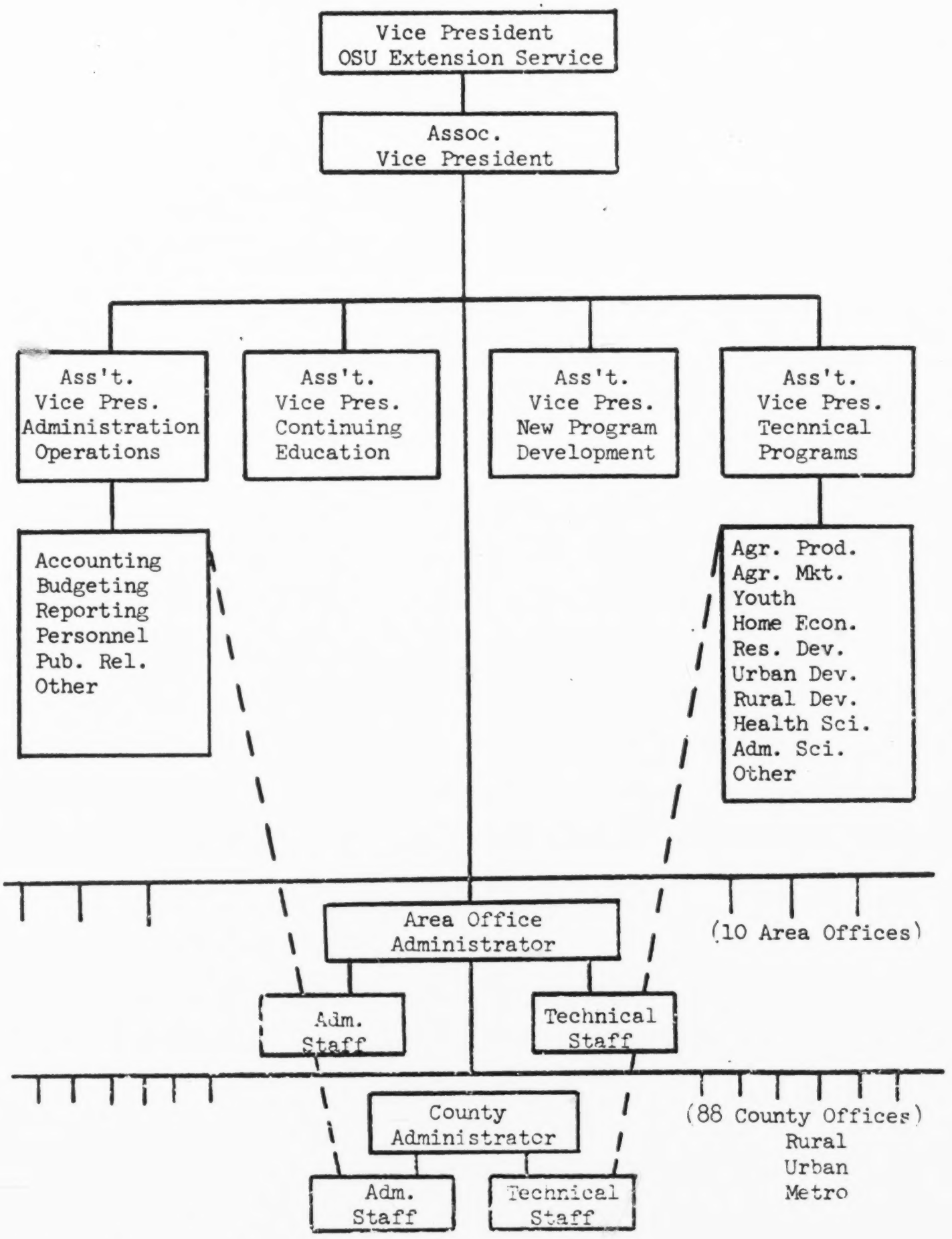
Macro Model of Extension

The macro model, shown in Figure 7, was built from the foundation upward. The foundation is made up of the micro county organization structural units each identified and staffed according to the local markets or audiences they serve. Thus the macro model reflects the desired flexibility of personnel and programs possible within a solid framework of subsystems and communication networks.

Moving up from the local level to the next, the area office comes into view functioning as an intensive intelligence center. Administratively, it receives new ideas from several county offices, combines similarities, describes differences, and assists in putting together new program proposals. Ongoing program reports can be monitored, compared, collaborated, and forwarded. Routine problems can be isolated and corrected at that level. Only the exceptional problem would require top level attention. Resource funding and budgeting at that supervision level encourages accountability in administration.

FIGURE 7

MACRO MODEL - PROPOSED EXTENSION SERVICE



Problems of technical nature likewise are better described and solved near the local level. Only the major technical problems surface at the state level. Personnel problems in either the administrative or technical staffs likewise are best solveable at the area level or below.

The state level organization only partially resembles the currnet Cooperative Extension Service structure. The administrative operations would comprise one major arm of staff organization. The technical programs staff comprises the other major staff organization. Note the word "staff" in both because they are both support functions connected by dotted lines to their respective groups at the area and local levels.

Here it might be well to consider new nomenclature for these staff persons. The literature cites case after case of the need of exyension to have its own academic faculty, the implied difference of extension adn resident faculty, tenure and compensation differences, ad infinitum. In other words, time has built a word definition pertaining to resident faculty that is difficult for extension to transcend easily or fully.

Therefore, could not another lesson from industry research organization be applied here? The lesson is that very few good researchers or good teachers make good administrators. Psychologically good researchers are often happier if left in that environment. Instead they are rewarded by their peer acceptance in their discipline, then are "pushed" into promotions via administration. This is a whole field of study within itself.[21]

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[21] James R. Miller, Michael Jucius. "Management of Research Personnel: An Hour Glass Concept," Unpublished paper, College of Administrative Science, The Ohio State University, Columbus, Ohio, March, 1968.

Suffice to say here, consider for example, re-naming positions from area level in technical staff upward along these titles: area agronomy specialist, state agronomy specialist, state technical supervisor for agronomy, senior technical advisor, senior fellow for agronomy, senior fellow emeritus, etc. In this way the professional ranks are somewhat related by extension views but not in direct conflict with faculty views of status in a discipline or department.

Administrative staff titles could likewise reflect the position and progress. For example, area accounting specialist, state accounting specialist, state accounting supervisor, and senior accounting advisor, emeritus might be used.

Assistant vice presidents are at the levels of major staff inputs. Division directors and department chairmen titles would identify each of the departments serving under them. Again, the size and kind of departments would be a function of needs and resources immediately and potentially available.

The line organization flows from the county administrator to area administrator direct to the associate vice president. This facilitates uninhibited communication and action where the authority, responsibility, and acoountability are centered. The span of control remains a feasible ten area administrators to one state administrator.

Two assistant vice presidents are suggested at the level. One would serve to head up Columbus Campus Center For Tomorrow Building and Continuing Education activities. These activities are now quite successful and being managed very well. The other assistant vice president would serve as manager of new program development. It is in this

office that broad new directions and planning would take place. Here, information center concept and proposal writing capability would be envisioned to support new ideas and presentations sent through from the local level, passed on as feasible by the technical staff, and finally budgeted and approved by the administrative staff. The new program department would thus function as the leader in gaining new resources for total university extension outreach.

The associate vice president functions as highest line operations office similar to execuitve vice president and general manager of a company. He is responsible for the total success of operations at all levels, line and staff.

The Vice President for Extension is the policy level office, sitting in with full cabinet rank with the president and other vice presidents for academic affairs, business and finance, etc. The rationale for a cabinet level office in charge of all university extension outreach has much valid research to support it. Clegg, McCormick, et al. have published on the subject. States which have converted their traditional Cooperative Extension Service to a university general extension thrust have well documented their plans and problems of implementation. These include among others Missouri, Wisconsin, West Virginia, North Carolina, and Georgia.

Throughout this study a series of questions has been raised and reraised each time a new plateau of research input was achieved. They all dealt with the value and real pertinence of services beginning

with the traditional Cooperative Extension Service. They were repeated after the current university extension status was reported and related to not just solutions, but to providing solutions in time and with the velocity demanded by the times. Dynamic environment systems concepts were reviewed and again questions relating to the Cooperative Extension Service were raised. The models were presented with a listing of apparent benefits provided. The overall continuing education and extension thrusts were described as they relate to professionalism, status, programs, funding, administration, organization, methods, and personnel.

One final summarizing question can be reiterated, "What is the true social value of the general extension outreach of Ohio State University?" As Battelle probed, "Are there other uses for public funds that will provide greater social benefit per dollar invested than that provided by the Cooperative Extension Service?"

There are several conclusions from the Battelle study which appear to still have relevance. These will serve as a basis to the closing analysis and concluding remarkds.

Battelle stated:

> "Political history indicates that major changes in legislation usually result when situations reach extreme stages. It would appear that the best source for Extension is to prevent this extreme situation from occurring by "reading the signs" and adjusting accordingly. In the past, Extension has made such changes in organization and operations post facto. It is unlikely that such a luxury can be

afforded in the future. Lead time for adjustments is going to be increasingly critical. If such adjustments are made in advance, Extension (1) would be in a stronger position to sell legislators on its programs, (2)if budget cuts are made, would be in a position to make maximum use of funds, and (3) can more effectively seek funds from those organizations that benefit from its activities.

Considering the scope of the change suggested, more estensive than any previous ones in the recent history of the Extension Service, it is important that all Extension workers be made fully aware of the intent of such changes, and if possible be included in every phase of planning changes. Preferably such changes would be made over a period of time so that individuals can adjust to expected changes and clientele can be properly indoctrinated as to the future situation. A stronger Extension Service would result from building the confidence of Extension workers in the future position of Extension that would result from the changes. Certainly, benefits provided by any change would be nullified by a loss of worker morale."[22]

The two major points of need emphasized by Battelle are (1) the importance of identifying, timing, and responding, to change; and (2) the dependence upon human resources for staffing, committees and funding. These same two major points have proven their value in dynamic behavioral systems environments in industry--the placing of properly trained people in the most decisive positions.

The theoretical models conceived and presented in this study offer two major benefits:

(1) They emphasize the local level staffing capable of sensing, identifying, researching felt and unfelt needs of the changing society by the broadest definition.

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[22] Fishel, Collings, Wilhelmy. "An Objective Evaluation of the Present and Potential Structure and Functions of the Ohio Cooperative Extension Service."

(2) They provide for positions where people can be best utilized for current capability in a traditional setting. Retraining and redirection of personnel is possible in other settings still maintaining high level morale. Whole new personnel can be brought in smoothly and effectively to bring about change without disturbing the ongoing organization.

More specifically, redefining the counties according to the theoretical models appears to provide the following benefits:

(1) Present organizational structure of the Cooperative Extension Service is utilized with county, area, and state personnel.

(2) Present Cooperative Extension Serviee fixtures and facilities located in county, area, and state offices can continue to be utilized.

(3) The addition of continuing educational or general extension personnel can be accomplished with little or no increase in fixed overhead costs beyond the present No. 1 and 2 noted above.

(4) The present individual and total attributes of the Cooperative Extension Service and general extension or continuing education can be continued. There is no competition or substitution of capabilities of personnel, etc. They can be combined for mutual benefit as noted by McCormick.

(5) The individual continuing education groups can be joined to gain strength. Cooperative Extension Service also gains strength because of widened capability. These results can be anticipated based on experience in states where extension was merged.

(6) The colleges' academic departments lose continuing education and extension services but they gain because faculty presence and overhead is also lessened. The conflict of extension and resource staffs is reduced. Respective goals, thus separated, can be removed from marginal status, better defined explicitly and accomplished.

(7) The capabilities and strengths of individuals and departments can be maintained in technical staffs thus continuing the assets of the Cooperative Extension Service to greatest advantage.

(8) Traditional audiences, programs, and committees can be continued with minimum interruption or change.

(9) Slow changing audience segments can be identified. The staff and program adjustments can be made within a stable ongoing system with little trauma to the employees or the audience.

(10) Rpaid changing environments can be identified; dynamic behavioral systems concepts employed; so as to prescribe solutions before problems and people provide extreme shock waves into society's change of that county. Present employees located in these environments are probably already somewhat insecure as to their future. They can be relocated in a minimum of situations (probably eight counties) maybe to an adjacent county position.

(11) Administration and communication concepts make up the skeleton of the line organization. People trained and skilled provide the leadership and direction; conforms to sound organization theory and proven in practice.

(13) Administrative staff supports the line organization to insure administrative accountability, supervision, decision making, and reporting.

(14) Program planning originates either at local level with new ideas, or programs can be pushed down from federal or state funding. This should expedite action on government programs which in recent years have suffered for this reason. The local office is the hub of action with the interface of society and audience segments. The area office is the intelligence center for new and ongoing programs. The state level is where the overall budgetary and political activities take place to accomplish program funding.

(15) The area and state offices remain largely as they are today except persons are relocated and functions renamed.

(16) The major new addition to the organization is of cabinet level office for Vice President of Extension. This position may possibly be filled from present personnel if their capabilities fill the position profile resulting from more detailed analysis.

(17) Thus a total merger can take place with very little trauma to personalities or organizational structure.

(18) The financial assets combined from present individual income from contracts, programs, legal bases can provide adequate beginning budgetary requirements. This is estimated at about $12-14 million total made up of Cooperative Extension 1969-70 budget of $8,922,811 plus other college continuing education budgets.

(19) The relationship of resident faculty and extension can be enhanced because academic faculty need not fear extension faculty status. New titles, position descriptions and nomenclature eliminates the case of traditional comparison.

(20) The conflict of dual allegiance to discipline and organization in an extension environment of practicioners in the everyday world is minimized more than can be expected in academic departments per se. Program success and teamwork through functional relationships will be maximized.

(21) Power and authority will be centered at the level where responsibility and action are the greatest. A minimization of "Bureaucratic crust" should occur because of dynamic sources of information and parameter definition.

(22) The philosophies and objectives of Extension can be better defined thus offering the goals and missions to be programmed and completed.

(23) The best of the organizational forms is utilized through strong decisive line structure with well informed and communicating support by two staffs.

(24) The remodeling of counties and merging of functions will provide unlimited positive public relations value.

Adler's[23] latest book lists a number of current vital subjects of interest by pragmatic experts in the fields of marketing, organization, and behavioral change. The chapters are titled, "Marketing Vision," "Concentration," "Investment Philosophy," "Product Innovation." Do these not also appear to be similar to those in a book on Extension? "The End Run," "Brand Extension," " Market Segmentation," "Multibrand Entires," "Distribution Break-Through" from Adler parallel the thoughts

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[23] Lee Adler. Plotting Marketing Strategy, A New Orientation, New York, N.Y.: Simon & Schuster, 1967.

expressed in this study for the need for new organizations and services to end run traditional Cooperative Extension Service rigidities in order to reach new audience segments with a multiplexity of programs.

"The Distribution Break-Through" of Adler and other marketing men may well parallel the author's multi-county models to distribute general university extension services.

Adler's last two chapters are titled "Merger and Acquisition" and "Iconoclasm." Here very succinctly stated is the analogy of the Extension movement. Complete merger is essential and in order to do so successfully the top management must be willing to visualize creative and unorthodox ways to solve orthodox problems and extend the outreach of Extension or expand the market.

SURVEY RESULTS, CONCLUSIONS AND RECOMMENDATIONS

The field test phase of this study was designed to identify the reactions of high level administrators outside the State of Ohio to the theoretical models. The authors felt that if value judgments were to be relied upon in a descriptive study, then the research population should be as knowledgeable as possible, and yet removed from the structure of Ohio State University Extension organizations. The methodology offered by the theoretical models was very precisely in question. Other ancillary subjects were not to have been included at this time by too much introspection.

The experts were defined as high level administrators of Extension in state universities and land grant colleges with professional degree granting facilities. The institutions were located in midwestern, southern, eastern, and southeastern states, generally within the four states of Minnesota, Louisiana, Georgia and New Jersey.

The experts were able to offer perspective from both the merged general and cooperative extension service; as well as the independent cooperative extension and independent general extension service. The twenty-two states included fourteen with separate extension services. The eight states with merged extension services included: Wisconsin, West Virginia, Missouri, Georgia, Delaware, Alabama, Iowa and Virginia.

The models were presented along with supporting written text. The first four chapters of the draft were reproduced, bound and mailed to each expert along with a cover letter and questionnaire.

The response from non-merged extension administrators of merged institutions was sixty-three (63) percent.

Conclusions

(1) The respondents in the field test were supportive of the thesis that the theoretical models could provide assistance as a methodology to improve the extension outreach in both merged and non-merged organizations.

(2) The theoretical models could assist in bringing about a merged extension service where a non-merged structure now exists. If no merger was contemplated, the models were confirmed as still being applicable.

(3) The importance of the local level and change agent were confirmed as being the most critical variables in the developeing new programs and implementing other programs.

(4) Program planning and implementation were identified as the major problems. It was concluded that the models could help solve these problems.

(5) The use of other proven concepts from the business and industrial world was considered a contribution to the body of classified Extension knowledge.

(6) The structure of informal and formal line and staff organizations was felt to be applicable and adaptable to the Extension Service.

(7) The elevation of Extension to cabinet level rank was thought to aid in the communications and image building process; and provide a more equitable status with resident teaching and research personnel.

(8) It follows deductively that since the concepts advanced in this dissertation have been confirmed as providing valuable contribution to the body of knowledge for all Extension and they appear in fact to be applicable; then these concepts should be able to provide significant inputs into the future planning of the Extension outreach from the Ohio State University.

(9) By similar logic, the concepts advanced in this dissertation having been confirmed through a very large response from deans or directors in the United States, certainly appears to be generalizeable to other land grant universities.

Recommendations

Based on the research prior to the field test and confirmed by the field test, the theoretical models conceptually offer an opportunity to improve the outreach of the Cooperative Extension Service in Ohio. We suggest the following order for implementation.

(1) The eight metropolitan counties were identified. We recommend the metro model concept be initiated as soon as possible because regardless of activity and programs to date; these are the locations where the greatest divergence exists between capability of Cooperative Extension Service and social need, and between the present programs of Cooperative Extension Service and the demands of direct federal program funding.

(2) Begin to reorganize and develop an internal management consulting team of experts who can identify, research and advise state administrators on subjects of profiles by audience segments, demographic

groups and geographic coverage. This is needed for second and third level details of planning and staffing feasibility.

(3) Identify definitely those counties to be classed as rural and begin to restructure those organizations in accordance to the model concepts. Here a minimum of change is expected.

(4) Begin to identify the leaders who can reorganize the area and state levels into administrative and technical staff units.

(5) Tentatively identify urban counties and classify them according to change, rapid or slow; adjacent to rapid or slow changing counties, etc. Develop a system to profile and monitor the change that takes place in urban counties. Implement the urban model concepts along with other research findings as to program needs, funding and sources.

(6) Plan and initiate new indepth retraining and relocation programs to develop innovational attitudes; to further multiply output with lay persons and paraprofessionals; emphasize planning, coordination, and reporting; and generally improve their roles and morale.

(7) Initiate an aggressive communications program reporting internally to motivate employees, and reporting externally to develop an image of positive action among constituents, voters, and legislators.

To this point nothing has been mentioned or inferred about the merged general and cooperative Extension service. This was beyond the scope of this study. However, if a bold thrust to unite these units were considered, the following points would be suggested.

(8) Design and implement a study to define the appearance, organization and objectives of the proposed merged service as described by the members of the merger. This would be a descriptive study.

(9) Organize a research team to prescribe who and how to bring about a merger. Identify the power structures, biases, individual insecurities, elements to be compromised, those not to be compromised. Describe the pressures and residuals, legal constraints and funding sources. This would be a feasibility study to implement a merger.

Epilogue

Thus the conflicts of the proportionally declining recognition of the Cooperative Extension Service voiced in the popular and professional press, the Battelle report, and individual comment continues. However, also continuing are the strong lobbies supporting agricultural programs, education and Extension. Here in the State of Ohio these offer some very real and obvious manifestations; and some very subdued and subtle implications to change.

In conclusion it has been stated several times above that the State of Ohio, The Ohio State University, its Extension outreaches all have been indeed fortunate to have good leadership and funding. The intent of this study has been to be as positive and yet as objective as possible in reporting the accomplishments, the goals, and the problems up to the current time frame. Where constructive comment was made, it was intended to be used as basis on which to offer a solution--"Built-in rigidities of the institutions and established power structure

can tend to inhibit progress."...."The more rigid authoritarian systems that have pervaded our past are not equipped to cope with the constancy of change."...."Organizations that get caught up in very dynamic environments have an increasingly difficult time identifying problems, let alone prescribing solutions."

The correct timing of any venture is paramount to its success. We conclude the time is right. We conclude the theoretical models do offer an applicable methodology.

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